



Memorandum

TO: HONORABLE MAYOR AND
CITY COUNCIL

FROM: Robert L. Davis

SUBJECT: PATROL STAFFING SOFTWARE

DATE: May 18, 2004

Approved

/s/

Date

INFORMATION

This memorandum is in response to the Mayor's March 2004 Budget Message that directs the Police Department to "utilize its new patrol staffing software to develop alternatives for officer deployment using different scenarios and factors such as shift-starting times and levels of free patrol time to achieve the most efficient use of patrol resources."

BACKGROUND

In the past, the Police Department's Crime Analysis Unit utilized Microsoft Excel software and the *Solver* optimization program to develop the patrol allocation model. The Excel application was not customized for patrol allocation, but did allow for what-if scenarios based on specified constraints. Customization was accomplished within the Department and utilized Computer Aided Dispatch (CAD) data and Bureau of Field Operations (BFO) constraints such as team integrity and shift starting hours.

In accordance with a recommendation by the Office of the City Auditor, the San Jose Police Department has acquired a new patrol staffing software application. The Department selected Corona Solutions' software application *Staff Wizard* to assist in the Bureau of Field Operations (BFO) patrol staffing and planning process.

ANALYSIS

The *Staff Wizard* application will allow Department members to analyze and review actual CAD calls-for-service workload data for pertinent time periods (as compared with the prior patrol staffing model that utilized aged and averaged CAD data). One important distinction from the prior methodology is that the Police Department could not easily access recent calls-for-service data from the CAD system. Currently, actual CAD calls-for-service data consistent with time periods for BFO shift change can be accessed more readily. *Staff Wizard* utilizes actual calls for service workload data from the Department's CAD system to help police administrators determine more accurately the best balance between staff resources and in-demand services.

The deployment goal is to optimize patrol staffing with patrol workload while considering Department performance targets and constraints such as labor agreement restrictions. In support of this goal, *Staff Wizard* will be employed as part of a broader review process to assist the Department in identifying planning issues and determining resource deployment. As mentioned in the Department's Neighborhood Policing Operations Plan (NPOP), the Police Department has created a multi-unit staffing & planning group to review the broad spectrum of patrol-related allocation issues in advance of each BFO shift change. This review process aims to leverage the computer analyzed data with the first-hand experience of police administrators to consider community context and policing practices.

The review and planning process takes into account various organizational, community, and experiential factors over and above a computer generated model, such as staffing resources, performance goals, labor agreements, officer and community safety, the "built" environment, future housing and demographic changes, policing practices, crime control and prevention strategies, etc. *Staff Wizard* will be used as one tool within many analytical processes for determining sworn patrol staffing deployment and cannot be the sole driving force behind the Police Department's deployment plans.

To date, the vendor has provided training to select Department members and coordinated work is underway to ensure that compiled CAD data is accurate and complete for application usage. The Department is currently testing and evaluating *Staff Wizard* against the compiled data for the most recent BFO shift change period.

CONCLUSION

The Police Department will be using data from the March 2004 shift change as a starting point for utilizing the *StaffWizard* application as a deployment tool. We anticipate utilizing the *Staff Wizard* software application more fully in support of the upcoming BFO shift change commencing September 26, 2004. Select factors, however, such as the implementation of the new CAD system next month, related data issues, and application versioning influence the rate of progress in using *Staff Wizard* as part of the patrol allocation process. As the Department transitions from the legacy CAD to the new Intergraph CAD system in June, modifications and reviews of the software interface and calls for service data will be required. A report will be submitted to Council during the next budget cycle identifying the data analyses and assumptions defined to date for full implementation of *StaffWizard* in patrol deployment.

/s/

ROBERT L. DAVIS
Chief of Police

RLD/CAH